bounties, particularly the large sums paid for recruits during the last year of the rebellion, stimulated the cupidity of recruit and substitute brokers to the exercise of an ingenuity and perseverance, and to achieve a success, in imposing upon the army senility and childhood for vigorous manhood, and imbecility for soundness of understanding, which, had they been displayed in the genuine service of their country, would have commanded the blessings of a heroic patriotism. It was found that recovered soldiers discharged from the hospital and service, and paid off, and left to journey to their homes by themselves, were so frequently the victims, while on their way, of the diabolical arts of 'drugging' and robbery, and then of literal sale as recruits or substitutes, that no such patients were permitted to leave the institution during the last six months of the war, except under the personal protection of friends or officials. The fact that nine natives of Canada were admitted to the hospital during the period under review, while only two were received during its previous history of nine years, affords ground for the suspicion that our political neighbour on the north parted with some of her dependent population at a handsome premium. We could write the current history of several of the large almshouses and municipal institutions for the insane from the declarations of patients received into the hospital during the past year.

"The percentage of mortality this year was large, but, however much we may regret it, it seemed inevitable under the circumstances. Over seventy-two per cent. of the deaths were in cases of chronic insanity, and in three-fifths of the remaining cases the fatal event was due to morbid condition existing at the time of admission. By *inanition*, as an assigned cause of death, is meant the non-assimilation of food in consequence of a peculiar exhaustion of the vital forces. In these cases the mental disorder was not of an active and exhaustive type, and no acute idiopathic disease could be detected. The only exception to our remarkable exemption from local disease consisted in the communication of typhoid fever, with which many soldiers were admitted in the fall and winter, to some of the chronic cases already in the house, who, from defective innervation, offered but little resistance either to the invasion or progress of an asthenic disease, and for a few weeks the fever prevailed considerably in several wards on the male side of the house.

"The population of the hospital at the close of the last government year was less than it had been at any other time for two years previous. This reduction was mainly effected by embracing the favourable opportunity which the return in June of so many of the different organizations of the army to their respective States afforded to send home, in the care of comrades or officers, all recovered men, and most others who had evidently not become insane in the line of duty, and would certainly be properly cared for either by their friends or the local authorities."

Much was done in the course of the year towards the completion of this national hospital.

P. E.

ART. XXII.—*Guy's Hospital Reports.* Edited by SAMUEL WILKS, M. D. Third series, vol. xi. London: John Churchill & Sons, 1865. 8vo. pp. 466.

THE present volume of this valuable publication contains twenty original communications, eight lithographic plates, and a number of wood-cuts. As has been for some time past our practice, we shall lay before our readers a full analysis of its contents:—

I. *On the Value of the Study of Morbid Anatomy.* By SAMUEL WILKS, M. D.

The object of this paper is to set forth some of the principal facts taught by the study of morbid Anatomy, and also what may be hoped from further investigations.

The difference between health and disease, says one of the most instructive of modern writers in our profession, consists in the deficiency, that is, the temporary or permanent subtraction, of substance or power, and not in its unwonted increase. Pathological phenomena, he says, are the deformed remains of the normal vitality. (*Lectures Chiefly Clinical.* p. 604.) The same writer elsewhere declares his belief that "in no way is both the science and the art of healing so likely to be improved, as by the association in its literature, and through that in the minds of its practitioners, of pathology with physiology rather than with morbid anatomy; that juster theoretical views are elicited by looking upon disease as part of the phenomena of life than as the producer of appearances after death; and that patients are more likely to be cured by one, however original observer or reader, who is considering even imperfectly the vital actions exhibited by them, than if he knew exactly what would be the consequences of the disease in the corpse." (*Digestion and its Derangements*, p. 3.)

We do not know whose patients fare the best, those of Dr. Chambers or those of the zealous and enthusiastic student of morbid anatomy whose paper is before us. At all events, so far as their therapeutical views are concerned, they are not in discord. Reasoning, the one from cause to effect, the other from the effect to the cause, they both have reached very similar conclusions. "The changes which are met with in the dead body," says Dr. Wilks, "as affecting the viscera or tissues, are of a degenerative kind, whether we make use of the naked eye or employ the microscope for their elucidation." He believes, moreover, that particular tissues can only undergo particular changes; for instance, that the sole organic change to which the lungs are liable, is the production of a single cell-growth, as in pneumonia, or to a vitiated cell-growth, as in tubercle. Other changes found in organs are due to the seeds of disease being brought there through the circulation. When, for example, an abscess is formed in the lung, it is always a secondary and never a primary process; the blood is diseased, and the source of contamination will be found elsewhere in the body. What are the morbid changes peculiar and essential to the different tissues of the body, and what are foreign to them, must be shown by further study.

It is extremely gratifying to find those theoretical views, which we believe to be the basis of correct medical practice, supported by the conclusions of so thorough a morbid anatomist as Dr. Wilks.

II. *Additional Cases of Supra-renal Disease, with Remarks.* By SAMUEL WILKS, M.D.

In the number of this journal for January, 1863, we gave a review of a paper by Dr. Wilks on the *Morbus Addisonii*, which was continued in volume VIII. of the *Reports*. The present paper contains the histories of eight additional cases of this disease. Dr. Wilks still asserts that the disease of the capsules in morbus Addisonii is uniform and peculiar; that none other than this has yet been found in connection with the symptoms which Addison described, and none other which has been satisfactorily proved to be the sole cause of death.

III. *Cases of Enlarged Spleen, with Remarks on the Operation for its Removal.* By SAMUEL WILKS, M. D.

Having found in certain cases, where death occurred from impoverishment of the blood, at *post-mortem* examination, no disease in the body, except that the spleen was hypertrophied, Dr. Wilks considers it very clear that death was induced by the state of the spleen. As this organ may be removed with impunity from the lower animals, and as the human subject is said to have survived its removal by accident, he believes that the surgeon is at times justified in extirpating the organ.

IV. *Report on Lardaceous Disease.* By SAMUEL WILKS, M. D.

The chemistry and pathology of lardaceous disease have had much attention bestowed upon them during the past few years. That it is amyloid degeneration, as is taught by Virchow, is completely disproved, in our opinion, by the researches of Dr. Parry noticed in the number of this journal for April of the past year (p. 459). Lardaceous deposit is certainly a nitrogenized material.

A paper by Dr. Wilks, published in the *Reports* for 1856, contains an account of thirty-six cases of the disease under consideration; he now offers a further list of sixty cases that have occurred at Guy's Hospital during the past nine years. The whole series, containing ninety-six examples, proves indisputably that the disease is one implying a long-standing and deep-seated cachexia, and which is seen in its most intense form after a protracted caries and necrosis of the bone, which has had its origin in tuberculosis or syphilis. If no affection of the osseous system be present, the lardaceous disease is associated with tubercle in other parts of the body.

V. *Cases of Enlargement of the Lymphatic Glands and Spleen (or, Hodgkin's Disease), with Remarks.* By SAMUEL WILKS, M. D.

The cases described in this paper have certain affinities with the lardaceous disease, but Dr. Wilks believes them "to possess sufficient peculiarity to warrant their standing alone." They are mainly characterized by an enormous enlargement of the lymphatic glands throughout the body, with a peculiar white deposit in the spleen; the liver may contain similar deposits, and of late these have been discovered in other viscera. The lymphatic glands are large, firm, and translucent; showing under the microscope an abundance of cells scarcely distinguishable from the normal secreting bodies, and with more or less fibre-tissue. In the liver the material is much tougher and fibre-nucleated; whilst in the spleen, lungs, and kidneys, it is composed mostly of cells resembling somewhat those of tubercle.

As regards its degree of malignancy, this disease appears to take a place between cancer and tubercle; the growth in the glands with implication of the bronchial tubes and pulmonary tissue, resembling the former, whilst the mode of deposit in the splenic corpuscles and along the minute vessels of the portal system of the liver resembles tubercle.

The cases here given are fifteen in number.

VI. *Clinical Report on Diseases of the Testicle.* By THOMAS BRYANT.

This paper is one of very considerable length, occupying nearly eighty pages. It treats not only of diseases of the gland itself, but also of some of the enveloping tunica vaginalis, and of the spermatic cord. Although a good paper, it contains little calling for special remark. It may be new to some to find an India-rubber bag recommended for exercising pressure on a swollen testicle, in place of strapping with adhesive strips. It is to be noticed also that in operating for the radical cure of hydrocele, Mr. Bryant prefers the practice of injecting a mixture of the compound tincture of iodine, with a like quantity of water, to the introduction of setons, which of late has been warmly praised. Influenced by what we had read of the advantages to be derived from the introduction of a seton of silver wire, we once tried it, but shall never be tempted to repeat it.

A table, calculated to prove useful, of the diagnostic symptoms of chronic tumours of the testis is appended to this paper.

VII. *The Stereoscope, and Stereoscopic Results.* By JOSEPH TOWNE. (Section vi.)

In this section, Mr. Towne enters into a careful analysis of the experiments upon which Professor Wheatstone supports his stereoscopic theory, and brings forward a series of additional experiments, that exhibits the result of the stereoscope, and have a direct bearing upon the physiology of binocular vision. His paper is illustrated by two lithographic plates.

VIII. *On Cystic or Hydatiniform Disease of the Chorion.* By J. BRAXTON HICKS, M. D.

An hydatid mole is formed by the dilatation into cysts of the small villi of the chorion. Upon this all anatomists are agreed. The origin of the smaller growths found hanging from the other cysts is still a matter of dispute. Dr. Hicks supports the opinion, which we believe to be the correct one, that these are not only cysts growing from parent cysts, but merely "continuation of the growth after the normal type at first." These are not formations, therefore, to be considered as examples of "proliferous cysts," where one cyst is developed as the progeny of another cyst. This paper is illustrated by two lithographic plates.

IX. *Several Cases of Abdominal Tumour.* By S. O. HABERSHON, M. D. The cases related in this paper are as follows:—

CASE 1. *Disease of the appendex cæci; suppuration in the centre of the ilium and in the course of the psoas and iliacus muscles; opening below Poupart's ligament; extension to the diaphragm; acute empyema.*

CASE 2. *Cancerous disease of the colon and duodenum; ascites; jaundice.*

CASE 3. *Cancerous disease of the liver; enormous enlargement; scarcely any jaundice; simple chronic ulcer in the duodenum; infiltration of bronchial glands at the root of the lungs.*

CASE 4. *Extensive cancerous disease of the stomach and liver; no vomiting.*

CASE 5. *Abdominal tumour in the right loin; calculus in the kidney; chronic pyelitis for about fifty years; cancerous disease of the kidney; extension through the diaphragm; death from acute pleuro-pneumonia.*

These cases are all extremely interesting and instructive, on account of the obscurity of the diagnosis and of many important pathological facts in their histories.

X. *Clinical Remarks on Diseases of the Skin.* By S. O. HABERSHON, M. D. This is a good practical paper, one eminently qualified to aid in the treatment of a class of cases that often cause great annoyance and much suffering.

All diseases of the skin are thus arranged by Dr. Habershon:—

"I. LOCAL DISEASES.
  1. *Animal parasites*—
      Scabies, from *Sarcoptes hominis.*
      Prurigo, from pediculi, &c. &c.
    Vegetable parasites—
      Tinea favosa, from *Achorion Schönleinii.*
      Tinea tonsurans, from *Trichophyton tonsurans.*
      Herpes circinatus, " "
      Tinea decalvans, from *Microsporon audouini.*
      Sycosis, from *Microsporon mentagrophytes.*
      Pityriasis versicolor, from *Microsporon furfur.*
  2. *Changes of individual structures.*
      Pigment in ephelis, lentigo, vitiligo, leucoderma.
      Sebaceous glands, in acne, molluscum, comedo, strophulus albidus.
      Sweat glands, in miliaria, sudamina, &c.
      Papillæ, in warts.
      Lymphatics, in Barbadoes leg, elephantiasis.
      Fibro-cellular tissue, in keloid and scleroma.
  3. *Local inflammation of the skin.*
      Erythema, as intertrigo, erythema læve.
      Dermatitis.

"II. CONSTITUTIONAL DISEASE of a Strumous kind?
  1. *Eczematous,* lichen, eczema, impetigo, pityriasis, or papular, vesicular, pustular, and scaly forms of eczema.
  2. *Leprous,* ordinary lepra and psoriasis.
  3. *Strumous,* in erythematous and furunculoid forms, and lupus.

"III. EXANTHEMS—acute blood changes.
  1. *Contagious,* variola, vaccinia, varicella, rubeola, scarlet fever, typhus and typhoid fevers, erysipelas.
  2. *Non-contagious,* erythema, roseola, urticaria, herpes (?), pellagra, frambæsia (?).
  3. *From poisons,* mineral, vegetable, and animal, the last comprising pyæmia, glanders, malignant pustule.

"IV. CACHECTIC RASHES:—
  1. *Defective general nutrition,* rupia, ecthyma, pemphigus, furunculus, carbuncle, leprosy?
  2. *Defective blood conditions,* purpura and scurvy.
  3. *Defective nerve supply?* melasma, prurigo senilis, &c.

"V. Syphilitic Eruptions:—
Congenital, erythematous, lichenous, warty, fibroid, rupial, ecthymatous, scaly, tubercular.

"VI. Cancerous Eruptions:—
Epithelioma, cancroid, melanosis, scirrhus.

"VII. Congenital Disease:—
Ichthyosis, moles, nævi."

The practical advantages of the natural arrangement of these diseases are evident. The artificial classification usually adopted, that by Willan and Bateman, is founded upon the elementary appearance presented by the skin during diseased action, and it is a great assistance in forming our diagnosis to remember these divisions. In treatment, however, one such as that just exposed is much to be preferred.

XI. *The Ventilation and Warming of the New Wards, Hunt's House, Guy's Hospital.* By John Charles Steele, M. D.

In the erection of this building several novel principles were introduced with a view to effect a better system of warming and of ventilation than is generally obtained in hospitals. To understand the peculiar arrangements which are said to answer admirably, it is necessary to have the aid of the illustrative drawings by which this paper is accompanied. Contrary to usage, the vitiated air is removed from the wards by a series of flues, situated within a short distance from the floor. These flues empty into a tower, in which a powerful draught is obtained by the waste heat and smoke from furnaces.

XII. *On Vesico- and Recto-Vaginal Fistulæ, and Ruptured Perineum, &c.* By Thomas Bryant.

In this paper Mr. Bryant sets forth the principal practical points to be observed for success in the operations in question, and illustrates them by the histories of a number of cases.

In operating for the relief of vesico-vaginal or recto-vaginal fistula, one of the great difficulties is in obtaining a clean and even raw surface, by an incision around the whole margin of the opening. Every one who has operated knows how exceedingly difficult it is to prevent irregularity and raggedness in this cut. To facilitate this step of the operation, Mr. Bryant advises the use of what he calls a *guide*, which is an instrument shaped somewhat like a fork, with one or more curved prongs, which hold firmly the tissues to be pared away. In the introduction of the sutures he lays particular stress upon the necessity of inserting them at a considerable distance, say half an inch or more from the margin of the wound, of not adapting them too tightly, and of removing them so soon as the wound is healed. After the operation he removes the urine by periodically introducing a catheter, in place of retaining an instrument in the bladder. Opium is given by suppositories, in place of administering it by the mouth.

The points to be attended to in operating for lacerated perineum are thus described:—

"The surgeon having carefully examined the parts, and determined the important question of how much of the lacerated perineum requires closure, should place his patient on her back in the lithotomy position, and map out the portion of the membrane which he intends to remove, with a sharp scalpel.

"He must remember, as a point of primary importance, that the surface of the wound should be *clean and regular*, for it is essential to secure primary union of the two surfaces; the new perineum also, to be of permanent service, must be *firm, strong, and thick;* for if otherwise, the success of the case will be but partial or of little permanence.

"To secure these two objects, a free and clean section of the lacerated perineum is absolutely essential; it cannot be made too smooth, nor can the surfaces to be placed in apposition for union be too broad posteriorly towards the rectum; at least an inch of raw surface is not too much, when it can be secured, the width of the bared surface diminishing slightly towards the anterior portion of the labia. The best plan to obtain these results is to perforate the parts towards the centre, and, as it were, slit them up with one sweep of a sharp scalpel; the right half of the perineum being first treated, and the left subsequently, the whole area having been mapped out previously by a bistoury.

"This *first* step of the operation having been performed, the second, which is of no less importance, remains to be carried out, and that is the bringing of the parts into apposition and keeping them there by sutures. Wire sutures are probably the best for these purposes, for if they do not cause less irritation than smooth silk, they are at any rate more manageable. Each one should be inserted at least half an inch, or, better still, an inch from the margin of the wound, and brought out at its posterior border close to the vaginal mucous membrane; it should be then reintroduced at a corresponding point on the opposite side, and brought out at a spot similarly situated to the one at which it was introduced. When the recto-vaginal septum or sphincter ani has been lacerated, the introduction of the posterior suture is of critical importance, for it is an essential element of success that this septum should be likewise included and drawn forwards to the raw surface of the perineum by the suture. To secure this end, the suture must be introduced, as already described, at a point situated on a horizontal line passing through this septum; the needle is to be dipped well into the thickness of the tissues, and instead of making its appearance at the posterior margin of the wound, close to the vaginal mucous membrane, is to be made to pass through the thickness of the recto-vaginal septum, and then out of the right buttock, at a point corresponding to the one at which it was inserted in the left side. When this is well done, the wire or silk is buried completely in the tissues, and on being tightened the whole parts are drawn together, as it were towards a centre, corresponding to the anterior portion of the anus and posterior of the perineum. The other anterior sutures may be applied as already directed.

"With respect to the necessity of dividing the sphincter ani in this operation, I will only add that I have not yet met with a case requiring such treatment."

Success in cases of this kind depends greatly upon what are termed small matters, and recovery can only be secured by giving them the care and attention bestowed upon matters of great importance. On this account the histories of sixty patients treated by Mr. Bryant, here recorded in detail, will be found most instructive.

This paper is illustrated by several wood-cuts.

XIII. *Cases and Observations in Medical Jurisprudence.* By ALFRED S. TAYLOR, M. D.

These cases are eight in number, and each of them is particularly interesting.

The first is a case of the poisoning of three children with arsenic in vermin powder. They presented the usual appearances met with in poisoning with arsenic; the vomited matter was mixed with blood, bile, and flakes of mucus, and it deposited a sediment in which there were particles of a white sediment which was proved to be arsenic. The children were not seen for twelve hours after the poison had been taken, and they all recovered under the treatment adopted, which Dr. Taylor declares the best, namely, frequent doses of castor oil, with milk and barley-water, to promote the vomiting and purging.

It is important to notice that though the arsenic was taken at the same time and under the same circumstances, the symptoms varied in the time of commencement, duration, and nature. In one child the symptoms commenced in two hours. These were, according to the parents, sickness and thirst, followed by vomiting; pain in the abdomen came on subsequently, but this symptom did not exist when the boy was first seen by the physician, Mr. Boxall. At this time—that is, twelve hours after taking the poison—there was no pain in the bowels even on pressure, and neither pain nor tenderness at the pit of the stomach. There was also an absence of purging. In the two other children no symptoms of poisoning appeared until after the lapse of five hours. This is an unusually long interval, as the average period, according to Dr. Taylor, before the occurrence of symptoms in cases of acute arsenical poisoning, is from half an hour to an hour. The first symptoms here were vomiting, with pain in the bowels; when Mr. Boxall saw them there was thirst, with nausea, but no vomiting or purging.

The second case is one of death from perforation of the jejunum as a result of disease; the death being apparently a result of violence. Here, but for a careful search made, the peritonitis of which the man died would have been referred to violence sustained during wrestling.

The third case (called *fourth* in the original paper) is one very similar in its details, and in the medico-legal inferences to which it leads. A healthy-looking young man was thrown in a drunken quarrel, and died in twenty-four hours, with abdominal symptoms. In the transverse colon was found a chronic ulcer, that had caused rupture of the intestine, and extravasation, followed by peritonitis and death.

The fourth case is one where a boy was accidentally strangled by his neck-tie, in some machinery. This case corroborates the general medico-legal opinion that complete occlusion of the trachea is attended with immediate insensibility, and that a person may recover in spite of the complete suspension of respiration for one minute.

The fifth case is that of a man who was run over by a light cart. The dresser at the hospital found three ribs fractured, for which a bandage was applied, and the man walked home. He died about 11 o'clock on the same evening. At the autopsy not the slightest bruise could be found externally to indicate which was the injured side. On opening the abdomen, a large quantity of blood was found, that proceeded from the right kidney, which was torn transversely completely in half.

The sixth is a case of poisoning by opium, and the seventh is one of poisoning by belladonna. They are of interest on account of the prevalent opinion as to the antagonistic effects of these substances.

The eighth case illustrates the effects of a large dose of the extract of datura stramonium, and Dr. Taylor takes the opportunity of contrasting the properties of daturia and atropia. Dr. Taylor concludes this instructive paper by some very important considerations upon strychnia both as a medicine and as a poison.

XIV. *Clinical Lectures delivered at Guy's Hospital during the Winter Session*, 1864–5. By. JOHN HILTON. (Arranged for publication by GEORGE EASTES, from notes taken by himself and HENRY DENNE, Mr. Hilton's dressers.)

In his clinical lectures Mr. Hilton pursues the plan of taking up one case, and of entering fully into all the details of its symptoms and treatment, explaining thoroughly the why and wherefore of everything connected with it. This is far more beneficial to the student in our opinion than the plan usually adopted of bringing up a large number of different cases and then making upon each only a few leading remarks.

The cases upon which the present lectures are founded are: fracture of the clavicle; concussion of the brain with depression of bone; strangulated oblique inguinal hernia; irreducible inguinal omental hernia; compound separation of carpal epiphyses of both radii from the shafts of the bones, with tetanus; senile gangrene, and fracture of eleventh dorsal vertebra.

We will only say of these lectures that we have seldom read anything with so much pleasure and instruction.

XV. *Case of Ruptured Popliteal Artery.* By ALFRED POLAND.

This case is one where the popliteal artery was ruptured in a vertical direction, and to a very large extent, without any violence whatever or any other injury; the patient was walking at the time of its occurrence. The only explanation is that the artery was in an atheromatous condition, and thus rendered more easily lacerable. After the amputation of the limb, which was finally necessary in order to save life, the tissues were found in a state of fatty degeneration, and the bones very oily.

Three additional cases treated in the hospital are appended; although meagre in detail, they are interesting.

Mr. Poland's case is accompanied by a coloured lithographic plate, representing the lacerated bloodvessel.

XVI. *Poisoning with Fungi. Fatal Effects of the Amanita Citrina on a Woman and Child.* By ALFRED S. TAYLOR, M. D.

This paper contains the details of two cases of poisoning from eating mushrooms, with remarks upon the symptoms observed in similar cases, and the nature and properties of the poison existing in these noxious vegetables.

XVII. *Cases of Rheumatic Fever, treated for the most part by Mint Water; collected from the Clinical Books of Dr. Gull, with some Remarks on the Natural History of that Disease.* By HENRY G. SUTTON.

These cases are twenty-one in number. They are invested with considerable interest, from the fact that they were treated by such simple means, that they might almost be considered as unassisted by any remedy. It must not be forgotten, however, that rest in bed, a well-regulated diet, and good nursing, are powerful elements in the treatment of any acute disease.

These cases show among other things that the symptoms of rheumatic fever may, unaided by any treatment, entirely abate in five, six, seven, or eight days; that too much importance has been attributed to the use of medicines, and that the best treatment for rheumatic fever has still to be determined.

XVIII. *Four cases of Rheumatic Fever, treated with Mint-Water only.* With remarks by G. OWEN REES, M. D.

These cases, like those in the preceding paper, are reported by Dr. Sutton. Dr. Rees says that for his part, their results have firmly impressed him with the belief that the old plan of treatment consisting in the exhibition of calomel, opium, and antimony, and the free use of colchicum, did great harm, not only by retarding recovery, but by leaving the patient greatly debilitated.

A table is attached to this communication containing forty-one cases of rheumatic fever, containing all the important facts connected with them, in a form very readily to be consulted.

XIX. *Select Clinical Reports* (*Memoir IV.*) By G. H. BARLOW, M. D.

The subject treated in this paper is *cardial obstruction, the result of intra-uterine disease.* In an appropriate case, whose history is given in minute detail, there was febrile disease of the mother before delivery; lividity of the child; subsequent dyspnœa; increase of symptoms about the age of puberty; engorgement of heart, lungs, and liver; dropsy; death from apnœa. At the autopsy, very old pericardial adhesion was found, which had proceeded as far as ossification.

Among some valuable observations upon the therapeutics of cardial affections we wish to call attention to the following, as we have reason to believe that digitalis is given too indiscriminately.

" I would here add, as the result of considerable experience in cardiac disease, that in cases of this class (disease of the mitral valve) where it might be said that the character of the pulse resembles that produced by digitalis, it may be employed with confidence, though always with caution; whereas, in those cases in which the obstruction or regurgitation was distal to the mitral valve, and of which I have adduced aorta disease as the typical instance, digitalis is of little service, and its use attended with much risk; ammonia and senega, with moderate stimulation, being the appropriate remedies."

XX. *A Description of the Appearances of the Human Eye in Health and Disease, as seen by the Ophthalmoscope.* (First Series.) By C. BADER.

This paper treats of the ophthalmoscopic examination necessary in order to determine the shape of the eyeball, or more correctly, the distance of the yellow spot to the point in the eye where the rays coming from an object cross each other; the curvature of the crystalline lens and cornea, and relation of the cornea as to distance from the lens, being supposed to be normal.

An accompanying plate with three figures shows the appearances in the emmetropic, the hypermetropic, and the myopic eye.

We cannot close this notice of another volume of Guy's Hospital Reports without remarking upon the great value of such publications, and expressing the wish that the medical men attached to similar institutions in this country would follow so good an example.

"Wherefore," says Jean Louis Petit in the preface to his treatise of the diseases of the bones, "it is necessary for such as have practised, and continue therein, not to be sparing of their knowledge; but that they either communicate it during their lives, or at least leave it to persons who may publish it after their decease. *Not to do so, is to commit a crime against humanity; it is violating the laws of society, and (to use that expression) dying insolvent.*" W. F. A.

ART. XXIII.—*On the Arrangement of the Muscular Fibres in the Ventricles of the Vertebrate Heart; with Physiological Remarks.* By JAMES BELL PETTIGREW, M. D., Edinburgh, Assistant in the Museum of the Royal College of Surgeons of England, etc. From the Philosophical Transactions, Part III., 1864. London. 4to. pp. 445 to 500.

On the Relation, Structure, and Function, of the Valves of the Vascular System in Vertebrata. By JAMES BELL PETTIGREW, M. D., Edinburgh, etc. Reprinted from the Transactions of the Royal Society of Edinburgh, Vol. XXIII., Part III. Edinburgh. 4to. pp. 761 to 805.

THE principal part of the first of these papers was presented to the Royal Society of London in November, 1859, and formed the subject of the Croonian Lecture for 1860. It consists of four parts or sections, the first of which treats of the anatomy of the ventricle of the fish; the second of the anatomy of the ventricle of the reptile; while the third and fourth divisions are devoted to the structure of the ventricles of the bird and mammal.

In the summer of 1858, Dr. Pettigrew made numerous dissections of the hearts of many species of fishes, reptiles, birds, and mammals, with the especial object of determining the precise arrangement of the muscular fibres, an arrangement, as he well observes, so unusual and perplexing that it has long been considered as forming a kind of Gordian knot in anatomy. Vesalius, Albinus, Haller, and De Blainville, after making various attempts to unravel this anatomical mystery, confessed their inability to do so. In 1669, Dr. Richard Lower announced, as the result of his investigations, that the external fibres of the ventricles of the mammals proceed in a spiral direction from left to right downwards; while the internal fibres run from left to right upwards. At the apex the fibres are continuous, and form an imperfect figure of 8. Gerdy adopted the opinion of Lower, adding that all the fibres of the heart form loops, the apices of which look towards the apex of the heart. More recently, however, Dr. Duncan, Jr., of Edinburgh, maintained that the ventricular fibres form twisted loops, which look towards both the apex and the base. Senac, in the last, and Dr. John Reid, in the present century, showed that the fibres of the external and internal surfaces of the ventricles are more vertical in direction than the deeper or more central fibres, the latter being more circular.

As the result of his own labours in this field of inquiry, our author presents us with the following summary of the facts which he considers that he has established:—

"I. By exercising due care, I have ascertained that the fibres constituting the ventricles are rolled upon each other in such a manner as readily admits of their being separated by dissection into layers or strata, the fibres of each layer being characterized by having a different direction.

"II. These layers owing to the difference in the direction of their fibres, are well marked, and according to my finding, are seven in number—viz., three external, a fourth or central, and three internal.

"III. There is a gradational sequence in the direction of the fibres constituting the layers, whereby they are made gradually to change their course from a nearly vertical direction to a horizontal or transverse one, and from the transverse direction, back again to a nearly vertical one. Thus, in dissecting the ventricles from without inwards, the fibres of the first layer, which run in a spiral direction from left to right downwards, are more vertical than those of the second layer, the second than those of the third, the third than those of the fourth—the fibres of the fourth layer having a transverse direction, and running